# Unraveling the Usefulness of Flipped Instruction from the Lenz of Positive Psychology: Echoing Iranian EFL Teachers' Self-efficacy Beliefs

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### Abstract

The quality of learning outcomes in language learning has improved due to the rapid development of technologies. In the last decade, technologies have provided innovative learning models, such as flipped instruction in language learning. On the other hand, to prosper and meet the inevitable challenges and educational inequities, teachers require a sense of self-efficacy emphasized by positive psychology. The present study aimed to determine flipped instruction's impact on Iranian EFL teachers' self-efficacy. To achieve this goal, 62 teachers were selected by purposive sampling from different high schools in Tabriz and were assigned to the control (N=32) and the experimental groups (N=30). The experimental group followed the principles of flipped instruction, while the control group used the traditional approach in their classes. Two instruments were employed to gather the required data. Tschannen-Moran and Hoy's (2001) questionnaire on teachers' self-efficacy was used as a pretest and posttest, as well as a semi-structured interview. The analysis of data depicted that flipped instruction can exert an influence on mentioned teachers' selfefficacy. The results of the current study have some pedagogical implications for in-service and pre-service teacher training, curriculum and material development, and also computerassisted language learning to be aware of flipped instruction processes and their benefits to students in comparison with traditional models of teaching where the students' role is passive, and teachers are lecturers.

Keywords: Flipped classroom, Flipped instruction, Learners' achievement, Self-efficacy

### Introduction

The rapid development of technology affected education in a way that it has been integrated into educational curriculum and contributed to the improvement of learners'

performance (Ghaemi & Bayati, 2021), and teachers have been encouraged to implement technological tools into teaching (Kaviani, 2022; Khosravi et al., 2023; Mafenya, 2021). Implementing computer tools and other computer-related equipment for language learning and teaching is called computer-assisted language learning (CALL). According to Abdullah et al. (2023), teachers are trying to incorporate technological tools in their classes in line with the educational needs of 21-century. The flipped classroom (FC) approach has attracted educational centers, is widely employed by teachers, and is increasingly being studied by researchers (Vitta & Al-Hoorie, 2020). This approach can be considered as an alternative to providing quality education (Chung, 2023). Teaching material, including podcast lectures, recorded videos, or reference materials from other sources, are given to learners in FC before face-to-face teaching and learning sessions, in contrast to the traditional classroom, where learners participate in exercises in the class (Chen et al., 2019) and teachers can discuss these materials in the class and practice problem-solving activities with learners. Bergmann and Sams (2012) defined the FC as a reversed classroom or instruction (as cited in Wei et al., 2020).

According to Bitner and Bitner (2002), factors such as dynamic lesson plans, funding, and decisions regarding software, hardware, etc., can influence the application of CALL. Yet, the impacts of these factors are determined by teachers' perceptions, skills, attitudes, knowledge, opinions, beliefs, and personality, which affect the choices they make about when, what, and how to teach through using CALL (Bitner & Bitner, 2002). According to Rashtchi (2021), teachers play a vital role in any educational system's learning and teaching process, so their lack of efficiency, motivation, and self-reflection can fail the educational system. On the other hand, it is argued that second/ foreign language education is an emotional and challenging job (Mercer, 2020). A person's efforts, practices, and psychoemotional factors influence success in this field (MacIntyre & Mercer, 2014; Prior, 2019). This close relation between emotions and psychological drives resulted in positive psychology as a new trend in educational psychology. The aim of positive psychology (PP) is to "understand, discover, and promote the factors allowing individuals and communities to thrive and lead happier lives (Schnitker & Emmons, 2013). One of the factors that can affect conducting FC is teachers' self-efficacy. Teachers' self-efficacy refers to teachers' negative or positive attitudes toward their ability to accept and employ the FC approach as a learning and teaching medium (Balkaya & Akkucuk, 2021). Some studies have been done concerning self-efficacy and its impacts on teachers' positive intentions to employ the FC approach (Abusham, 2018; Balkaya & Akkucuk, 2021; Kadioglu & Oskay, 2023; Mahmood et al., 2021), but there is little research in the Iranian context. So, the present paper tried to fill this gap in the literature.

#### **Positive Psychology**

According to Dewaele et al. (2019), emotions in L2 learning and teaching were ignored due to the dominance of cognitive approaches in L2 education. Meanwhile, the misconception that studying emotion is not a scientific act has been resolved with the emergence of PP (Mackenzie & Alba Juez, 2019; Pishghadam & Abbasnejad, 2017). As a result, teachers' and students' emotions and effects were taken seriously. This school of educational psychology emphasizes a variety of ways through which people can develop in their personal and professional lives (MacIntyre & Mercer, 2014). It defends the function of both negative and positive factors in life. Its purpose is to assist people in developing positive emotions, adding meaning to life, living a better life, and increasing engagement (Seligman, 2006).

PP goes beyond the negative variables such as tension, anxiety, demotivation, boredom, stress, and the like (Cheng, 2023) and emphasizes positive factors such as hope, trust, well-being, joy, resilience, happiness, courage, perseverance, etc. PP builds on three key pillars: "positive subjective experience, positive individual traits, and positive institutions" (Seligman & Csikszentmihalyi, 2000, p. 6). While the first pillar concerns emotions and inner experiences, the second refers to well-being-related features. As the third pillar, positive institutions refer to institutional environments that help people grow (MacIntyre & Mercer, 2014).

The emergence of PP has resulted in a significant change in language education (MacIntyre & Gregersen, 2012) which caused researchers to focus on both positive and negative factors involved in L2 education instead of focusing on only negative emotions (Dewaele & MacIntyre, 2014; Wang et al., 2021). Positive emotions can add meaningfulness and joy to L2 learning and teaching (Gregersen, 2013) and build resiliency when encountering challenges.

#### **Flipped Classroom**

According to Namaziandost et al. (2020), the term flipped classroom was introduced by Baker (2000) and "has become central to discussions related to technology-enhanced and student-centered learning" (p. 1). FC approach is a kind of blended learning where homework and classroom exercises are reversed (Webb & Doman, 2019). Onyema et al. (2021) argued that FC is a practical model that contributes to learner-centered learning and problem-solving skills development. The teacher's function in this learning process is not to deliver knowledge but to guide and facilitate learning. The teacher develops and provides the teaching content to the students before the class, so the students must read, interpret, and synthesize new concepts from the materials in a place other than class (e.g., home). In the classroom, students practice learning problems and high-level concepts. The teacher can devote time to different activities instead of teaching new concepts. As a result, the teacher can practice with learners in FC classes one-on-one. Thus, as Wei et al. (2020) mentioned, teachers in FC classes, compared with traditional ones, have more opportunities to support the students by giving learning feedback individually. This kind of teaching has two parts: "classroom interaction and communication learning and computer-assisted learning outside the classroom" (Fallah et al., 2020, p. 70). Accordingly, the FC approach is a mixture of modern and traditional teaching approaches, which are influential in attaining learning objectives (Chan et al., 2020). The FC highlights self-regulated learning and physical classroom interaction by employing different pedagogies, such as learning based on problem-solving and inquiry (Chen et al., 2019). "The notion of the flipped classroom, stemming from the F-L-I-P framework, involves establishing a versatile, learner-centered educational setting facilitated by purposeful content delivery and skilled educators" (Khosravi et al., 2023, p. 5).

Concerning the fact that no two classes are indistinguishable, flipped classes are typically described by (a) an adjustment in the use of in- and out-of-class time, (b) in-class activities traditionally viewed as homework, (c) out-of-class activities generally considered in-class, (d) in-class activities that emphasize active learning and peer learning, (e) pre- and post-class activities, and (f) technology and innovation usage (Abeysekera & Dawson, 2015).

Some FC models include audio recordings instead of video (Wolff & Chan, 2016). The FC model is a new pedagogical method based on active and group-based problemsolving activities in the classroom, with simultaneous, non-simultaneous video tutorials and homework exercises (Bishop & Verleger, 2013). FC also allows students to learn content according to their learning style and at their own pace regarding their needs (Namaziandost & Çakmak, 2020).

It is well-known that language acquisition requires time, patience, and practice. For effective results in learning in foreign language classrooms, students should be able to engage in as many activities as possible to gain a better grasp of the new target language. However, due to restricted classroom time and limited opportunity for practice, teachers may be forced to skip vital aspects of effective foreign language teaching. The FC method can contribute to language learning outcomes by restricting the instruction to outside the classroom and providing room for additional practices and activities in the classroom (Baroudi & Shaya, 2022). The FC model benefits foreign language teaching by promoting two critical points to success: student-centered learning and autonomy (Amiryousefi, 2017; Hayat et al., 2020; Köroglu & Çakir, 2017 ).

Flipped learning changes the role of learners and instructors. Hung (2017) recommended an acquisition-rich environment where students can benefit from fluency and accuracy. This suggests that teachers should design syllabi covering meaning negotiation and linguistic instruction. The FC approach is gaining popularity among teachers because this approach is influential in making students more active during learning and teaching (Kang et al., 2023).

Previous studies have shown that the FC approach is an effective teaching strategy that results in the best attainments for teachers and students (Abd Rahman et al., 2021;

Chung, 2023; Dakduk et al., 2018; Hoshang et al., 2021; Norah, 2020). So teachers must "strategize their teaching approach and accurately translate the Flipped Learning approach into the teaching and learning process" (Abdullah, et al., 2023, p. 4) to gain their intended aims.

Numerous factors are associated with FC, and the attention here is on educator selfefficacy. One of the significant difficulties confronting instructors is adjusting and incorporating student-oriented systems, procedures, and methods that cultivate the capability to learn and empower autonomous learning. The accomplishment of these encouraging exercises and practices depends on teachers' and instructors' self-observation and trust in their expert ability to face up to the progressions associated with learning-focused models (Rodríguez et al., 2009). This self-discernment, called self-efficacy, assumes a significant job in how teachers select assignments and exercises, molding their endeavors and tirelessness when tending to specific difficulties, and even in their enthusiastic reaction to troublesome circumstances. Self-efficacy is considered an intellectual development that intervenes among information and activity. Alongside different factors, this decides the accomplishment of the activities themselves (Miguel et al., 2013). Teachers' self-efficacy has recently attracted the attention of researchers in education (Abusham, 2018; Corry & Stella, 2018; Horvitz et al., 2014; Mahmood et al., 2021; Ma et al., 2021; Pressley, 2021).

### **Educators' self-efficacy**

Bandura (1997) defines self-efficacy as the person's attitude towards and beliefs in her/his capability to complete a task or perform an activity well. According to Ozturk et al. (2016), self-efficacy refers to a person's belief that he/she has the required capabilities and skills to do a task through technology. Studies show that internal factors, including behavior and cognition, and external factors, such as context and environment, can influence a person's self-efficacy. Self-efficacy determines a person's intention to accept and employ technology (Venkatesh et al., 2003). It determines the person's attitude toward the level of motivation, the degree of persistence, the affective state of the activity, and the person's performance (Hatlevik, 2017).

Huang et al. (2023) believe that self-efficacy influences effective teaching. So, it has become a hot topic in education (Hardianto et al., 2023). Yilmaz and Turan (2020) believe teachers' self-efficacy greatly influences learning and teaching. Self-efficacy can contribute to creating a positive educational environment because teachers with high self-efficacy can teach effectively.

Shah and Bhattarai (2023) recognized four components contributing to teachers' selfefficacy: efficacy in learners' engagement, efficacy in teaching preparation, efficacy in behavioral competence, and efficacy in teaching skills. These four variables can impact teachers' techniques to perform teaching more ideally. Some studies have examined the relationship between teachers' self-efficacy and teaching effectiveness (Corry & Stella, 2018; Ma et al., 2021; Pressley, 2021). However, studies regarding the link between self-efficacy and teachers' intentions in employing the FC approach, especially in Iran, are limited.

Coban and Atasoy (2019) found a critical connection between educators' self-efficacy and perceptions of utilizing technology in education. Teachers with high efficacy tended to show a positive attitude and were more inclined to use technology to engage students in learning. Teachers' self-efficacy was apparent in their belief and certainty in instructing procedures, classroom administration and student engagement through technology during learning and teaching. Ong and Faridah's (2022) study indicated a positive relationship between teachers' self-efficacy and the utilization of technology. The results revealed that teachers are exceedingly certain in utilizing technology; notably, they are competent and sure in instructing, learning, and evaluating students. These discoveries, along with those of Jiang et al. (2022), showed that teachers with high self-efficacy were more specific, positive, and prepared to utilize technology in learning and teaching. These findings are in line with those of Doo et al. (2023) and Kızkapan (2023), who showed the critical relationship between educators' self-efficacy and their employment of technology-integrated instructing techniques. They concluded that high self-efficacy impacts teachers' intentions to use technology in teaching.

Their self-efficacy can influence teachers' effective use of flipped instruction. Moreover, teachers with high self-efficacy show positive attitudes toward their jobs and can make the classroom meaningful, engaging, and effective. The findings of this study can contribute to in-service and pre-service teacher training, curriculum and material development, and computer-assisted language learning. To run this study, the following research question was formulated:

Research question: How does FC in EFL classrooms influence Iranian EFL teachers' self-efficacy?

# Method

#### **Participants**

A sample of 62 Iranian EFL teachers (33 females, 29 males) within the age range of 28 to 40 years and TEFL majors were selected by purposive sampling from different high schools in Tabriz. Hennink et al. (2019) and Palinkas et al. (2015) believe that employing purposive sampling increases the chance of the researchers reaching saturation because the participants selected through this technique have rich information regarding the research topic. The participants were divided into two control and experimental groups. The control group consisted of 15 male and 17 female EFL teachers who functioned in a non-FC setting, and the experimental group included 14 male and 16 female English instructors who

Table 1.			
Participa	nts' demographic information	1	
		Number (percent)	
Education	B.A	36 (58.1%)	
_	M. A	26(41.9%)	
Gender	Male	29 (46.7%)	
	Female	33 (53.3%)	
Experience	Six years	3 (27.2%)	
_	7-10 years	5 (45.4%)	
	Above 10	3 (27.2%)	

functioned in an FC setting. Table 1 presents the demographic information of the participants. Table 1.

To achieve better visualization and more reliable results, each teacher in the experimental group was asked to assign the flipped instruction for two of their classes and run them accordingly. The number of students in each class was 6-9 years old, 20-35 years old, and had upper intermediate English language proficiency. Participants were selected based on convenience sampling. After the researcher introduced the subject of the study during a weekly workshop in the institute, the teachers who agreed to participate voluntarily were included in this study. Teachers were informed that they might be requested to attend an interview voluntarily. They were also advised to withdraw from the study at any stage with no consequences. The design of this study was quasi-experimental.

All participants were informed that the information gathered would be kept confidential and used for research purposes only. They were fully informed of the purpose of the study and will then be briefed on how they would be expected to participate in the study. In the stages of the study, the learners' consent, which, as Mackay and Gass (2015) posit, implies voluntary participation, was obtained through a consent form before distributing the questionnaire.

#### Instruments

Some instruments and tools were utilized to perform this study. First, the short form of the teachers' self-efficacy (TSES) questionnaire by Tschannen-Moran and Hoy (2001) was used. It consists of 12 items measuring three components: efficacy for instructional strategies, classroom management, and student engagement. The participants rate on a scale from 1(None at all) to 9 (A Great Deal), meaning the extent to which they can show special abilities concerning teaching.

The items in the short form of the TSES are shown in Appendix A. The reliability of the questionnaire for both the pilot study and the leading research was calculated ( $\alpha = .862$ ). Second, the researcher conducted an inductive semi-structured interview to elicit the

participants' subjective perceptions concerning flipped instruction and self-efficacy. A thorough literature review was performed to extract the interview questions based on the study's objectives (see Appendix B). An individual semi-structured interview was arranged with fifteen participants. The interview guide consisted of open-ended questions, allowing the interviewees to freely explain various dimensions of the interaction between flipped instruction and self-efficacy. Considering the validity of the questionnaire, three experts who were knowledgeable in self-efficacy commented on the questions, and some amendments were made. As Lazaraton (2000) has argued, a strong reliability coefficient "ranges from about 0.65 to 0.95" (p. 215).

#### Procedure

This study started on August 2, 2023, and ended on November 2, 2023. To collect data for the present study, the researchers distributed the questionnaire as the pretest to both groups. The researchers established a WhatsApp group in which the audio lectures, course videos, and transcripts of recordings with time-stamps were provided for learners in the experimental group. The teachers in the experimental group were following FC principles in which the English file course book was taught.

As the course began in the first session, students have explained the procedure and the new concepts of the flipped instruction through which they were going to be taught, its advantages and challenges, how in-class and at-home time should be spent along with what kind of assignments/activities the learners were expected to do respectively. The American English File 2, as the main course book, was covered partially according to the Flipped Instruction explained by the researcher to the teachers. The course contained 14 sessions, excluding the mid and final exam sessions.

The teachers also provided all the resources needed to accomplish the flipped classroom goals to enable students to be completely prepared for each session in advance. As the philosophy of flipped learning lets the teachers use a wide variety of tools to prepare the learners before class time, in this stage, valuable tools for enriching the at-home time of the learners as much as possible were introduced.

Useful tools included:

- A WhatsApp group so the EFL teacher could store videos and educational materials online for students to access at home.
- Audio lectures
- A transcript of the recording with time stamps
- Printed presentations
- Pre-existing videos

Other points regarding the evaluation methods (whether they were worksheets handed in at the end of class, weekly quizzes to ensure they had been learning at home, etc.) were also covered. In addition to the previous notes, students were taught the

techniques of how to take productive notes so that they were equipped to get the most out of at-home learning. Moreover, the qualities of at-home time and the procedure of in-class time were also clearly explained to the learners. Also, the learners were provided with videos and audio lectures from their instructor at home, and then they did tasks and exercises in class. The experimental group (teachers) and learners also received some training on FC before the treatment. After 14 sessions, the experimental and control group teachers responded to the self-efficacy questionnaire as a posttest.

#### Data analysis

After data collection, data analysis was run to answer the research questions. Twoway ANCOVA was used to check intervention before and after flipped instruction. For this ANCOVA analysis, the independent variable was the type of instruction (flipped or traditional), while the dependent variable was teachers' self-efficacy.

### Results

According to Hatch and Lazarton (1991), the assumptions of linearity, homogeneity of variances, and homogeneity of regression slopes must be examined before applying ANCOVA to make sure that different assumptions of the covariate were not violated. The results of checking the assumption of the linear relationship between the dependent variable (posttest of total teachers' self-efficacy) and the covariates (pretest of teachers' self-efficacy), the current researcher, are outlined in Table 2.

#### Table 2

Linear Relationship between the Posttest of Total Teachers' Self-efficacy and the Covariate of Teachers' Self-Efficacy

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups (Combined)	815.442	16	50.965	10.603	.000
Linearity	771.077	1	771.077	160.415	.000
Deviation from Linearity	44.365	15	2.958	.615	.847
Within Groups	216.300	45	4.807		
Total	1031.742	61			

As shown in Table 2, the linear relationship between the posttest of total teachers' self-efficacy and the covariate of teachers' self-efficacy was significant (F = 160.41, p = .000, p < .05), so the linearity assumption was not violated.

Table 3

Levene's Test of Equality of Error Variances for Teachers' Self-efficacy Scores by Group							
F	df1	df2	Sig.				
.768	3	58	.524				

As seen in Table 3, the significant value associated with Levene's test (.52) was more than the selected significant level (.05). For this reason, the homogeneity of variance assumption was met for teachers' self-efficacy scores in the two groups.

Table 4

Homogeneity Test of Regression Slopes for the Effect of Type of Approach for Grammar Instruction on Teachers' self-efficacy by group

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	913.055a	6	152.176	70.519	.000	.885
Intercept	24.640	1	24.640	11.418	.001	.172
GROUP * PRETEST	9.243	1	9.243	4.283	.057	.072
GENDER * PRETEST	7.420	1	7.420	3.435	.071	.059

The third assumption relates to the homogeneity of regression slopes. As laid out in Table 4 below, the results show that the significance level of the interaction between group and the pretest of total teachers' self-efficacy (GROUP \* PRETEST) (F = 4.28, df = .1, p > .05) and the interaction between gender and the pretest of total teachers' self-efficacy (GENDER \* PRETEST) (F = 3.43, df = 1, p > .05) were not statistically significant, leading to the conclusion that the assumption of homogeneity of regression slopes was not violated for the pretest and posttest of teachers' self-efficacy scores regarding both independent variables of group and gender.

After adjusting for the teachers' self-efficacy scores on the pretest, there was a significant difference between the two groups teachers' self-efficacy scores on the posttest, F(1, 57) = 51.88, p = .001, partial eta squared = .47 (Table 3); accordingly, the null hypothesis of the present study that states, "Flipped instruction does not have any significant

effect on Iranian EFL teachers' self-efficacy" is rejected and so it can be claimed that flipped instruction influence Iranian EFL teachers' self-efficacy.

## Discussion

This study attempted to answer the research hypothesis, "Flipped instruction/ FC does not have any significant effect on Iranian EFL teachers' self-efficacy." The present study's findings depicted that FC employed in the present research impacts Iranian EFL teachers' self-efficacy. According to Abdullah et al. (2023), teachers' self-efficacy is among the factors influencing their flipped instruction approach. Teachers' self-efficacy is related to a person's attitudes toward his/her ability to utilize the flipped instruction approach (Balkaya & Akkucuk, 2021). Self-efficacy can be viewed through the logical lens of positive psychology since studies have demonstrated strong relationships among academic success, motivation, and positive beliefs (Pajares, 2001). People with low self-efficacy doubt their abilities and avoid circumstances where they feel they won't succeed (Bandura, 1997). Self-efficacy is synonymous with what positive psychologists have named "subjective well-being" (Diener, 2000). According to Diener (2000), subjective well-being refers to how people feel about their lives and experience quality. Both positive psychology and self-efficacy try to enhance interpersonal skills, perseverance, and optimism (Seligman & Csikszentmihalyi, 2000). Some studies show that there is a positive relationship between teachers' self-efficacy and their intentions to accept and employ flipped instruction approach (Abusham, 2018; Balkaya & Akkucuk, 2021; Doo et al., 2023; Kadioglu & Oskay, 2023; Mahmood et al., 2021; Ong & Faridah, 2022; Teo & Zhou, 2014).

The present study's findings align with Ong and Faridah (2022), whose study indicated a positive relationship between teachers' technology employment and their self-efficacy. They found that teachers are confident in using technology in teaching and assessing students. This finding is also reported by Doo et al. (2023) that high self-efficacy positively impacts teachers' intentions to use technology in teaching. Similarly, Choo and Tuan Mastura (2020) found the same results. They argued that teachers with high efficacy favor using technology in their classes and can plan lessons, employ various strategies, and engage students in the learning and teaching processes. As a result, they can ensure students' excellent performance.

It is stated that self-efficacy can show teachers' confidence and ability to reach their teaching aims (Barni et al., 2019). In education, self-efficacy is a perception that teachers can improve students learning by their persistence in using appropriate teaching strategies (Emiru & Gedefaw, 2024). Dupuis et al. (2020) mentioned that teachers with positive self-efficacy often have better professional abilities. This claim is supported by Akdogan (2021), who found that teachers with high self-efficacy can enhance their professionalism. Furthermore, Aydin Gurler (2021) discussed that high self-efficacy can improve teachers' critical thinking and help them be innovative in teaching. Kang et al. (2023) also found that teachers with

high self-efficacy are more inclined to try new teaching methods and techniques to enhance their teaching outcomes. Surprisingly, Yokoyama (2019) argued that self-efficacy can influence teachers' educational psychology to improve students' academic performance because teachers who utilize flipped instruction can teach effectively and assist students in understanding taught materials deeply.

However, the findings of this study contradict the findings of the survey done by Namaziandost and Çakmak (2020), in which they found that the self-efficacy of female teachers noticeably differed after applying the flipped classroom model compared with their male teachers. They stated that a possible explanation for their finding is that the activities in the flipped classroom model would have enhanced the cognitive and social involvement of female teachers and motivated them to deal with more sophisticated circumstances efficiently than the male EFL teachers.

# **Conclusion and Implications of the Study**

Although positive psychology is somehow a new trend in psychology, it shows great promise for teachers. Positive psychology tries to make life experiences more rewarding and positive (Seligman, 1998) by enhancing self-efficacy, professional competencies, resilience and decreasing psychological distress.

In fact, the first conclusion of the current study is that EFL teachers' self-efficacy in teaching English can be enhanced by flipped instruction. Indeed, it is concluded that providing an enormous variety of valuable tools for the teachers to enrich the at-home time of the learners as much as possible accordingly would not only give the teachers more flexibility in class time for executing more collaborative activities but also make the most of the time but also, is effective to increase the self-efficacy of EFL teachers.

The second conclusion of the current study is that flipped instruction has the same impact on male and female teachers. In other words, it was proved that gender was not an essential factor to interact with the effect of flipped instruction on self-efficacy. This finding increases the generalizability of the results of this study since it means that the treatment (i.e., flipped instruction) has a broad circle of effects for both genders of EFL teachers, not just limited to the male or female ones.

Since teachers' efficacy is vital in meeting the aims of flipped instruction, it is necessary to improve teachers' self-efficacy to align with the aims of utilizing this technique. Dos Santos (2020) believed that some internal factors can influence teachers' self-efficacy. One such factor is teachers' teaching experience (Akdogan, 2021; Can & Daloglu, 2021; Choi & Lee, 2020; Infurna et al., 2018; Tseeke, 2021). As a result, the more experienced the teacher is, the higher their self-efficacy is. Experienced teachers can teach effectively because they understand different teaching situations better. Moreover, teachers with high experience are more confident in conducting learning and teaching tasks (Hardianto et al., 2023).

Another internal factor is teachers' attitudes towards their profession. Alemayehu and Genene (2019) found a relationship between teachers' self-efficacy and their attitudes towards the profession. This attitude includes how teachers perform their duties, are satisfied with workplace work, and feel content to be successful in their profession (Baroudi & Shaya, 2022). If teachers perceive their profession positively, they will develop a positive attitude toward it, resulting in their willingness to perform their assigned tasks and influencing their self-efficacy. In brief, teachers with high self-efficacy can make flipped instruction more effective, meaningful, engaging, and capable of arriving at their teaching aims.

In addition, our findings can be used by material developers and curriculum designers who need to understand what should be dealt with when attempting to develop, for instance, a course book or design the curriculum of a particular academic program. In fact, the material designers should allow the teachers to apply various tools to prepare the learners before class time to enrich the at-home time of the learners as much as possible. For instance, through WhatsApp, EFL teachers can store videos, educational materials, audio lectures, a transcript of the recording with time stamps, and printed presentations online for students to access at home,

There are some limitations regarding the present study. The first one is that age was not considered in the current study. So, this study can be done at different ages and compare the results. The second limitation is that this study was done about high school teachers. Other studies could be conducted employing university teachers as well.

Moreover, this study was conducted with a small number of participants. A similar research design should be carried out with a larger sample in General English and skill teaching courses to generalize the outcomes. More interested researchers may inspect the effect of flipped instruction and gender on students' achievement in language, motivation, attitude, etc. In brief, this study introduces a new and innovative technique (flipped instruction) in the Iranian EFL context that lacks this kind of innovation and interest. The present study might introduce this innovative approach to the Iranian EFL context, and Iranian EFL teachers would apply it and benefit from it.

# References

- Abd Rahman, S. F., Md Yunus, M., & Hashim, H. (2021). Applying UTAUT in predicting ESL lecturers intention to use flipped learning. *Sustainability*, 13(15). <u>https://doi.org/10.3390/su13158571</u>
- Abdullah, N. H., Yahaya, R., & Khalid, K. (2023). Educators' self-efficacy in implementing flipped learning approach: A literature review. *Malaysian Journal of Social Sciences* and Humanities, 8(9), 1-10. <u>http://dx.doi.org/10.47405/mjssh.v8i9.2518</u>

- Abeysekera, L., & Dawson, P. (2015). Motivation and cognitive load in the flipped classroom: definition, rationale and a call for research. *Higher Education Research & Development*, 34(1), 1-14. <u>http://dx.doi.org/10.1080/07294360.2014.934336</u>
- Abusham, J. (2018). Do something that scares you each day: the role of self-efficacy in preparing school leaders. *Educational Leadership and Administration: Teaching and Program Development*, 29(1), 64–75. <u>https://files.eric.ed.gov/fulltext/EJ1172222.pdf</u>
- Akdogan, A. (2021). The predictive power of emotional intelligence on self-efficacy: A case of primary school teachers. *International Journal of Curriculum and Instruction*, 13(2), 1742–1755.
- Alemayehu, M. H., & Genene, A. (2019). Teacher self-efficacy and its antecedents among post graduate diploma in teaching trainees of Dilla University: implications for Ethiopian secondary school teacher education. *Journal of Education, Society and Behavioural Science, 11*(2), 1–18. <u>http://dx.doi.org/10.9734/jesbs/2019/v31i430157</u>
- Amiryousefi, M. (2019). The incorporation of flipped learning into conventional classes to enhance EFL learners' L2 speaking, L2 listening, and engagement. *Innovation in Language Learning and Teaching*, *13*(2), 147-161. http://dx.doi.org/10.1080/17501229.2017.1394307
- Aydin Gürler, S. (2021). State of prediction of the critical thinking dispositions of primary school teacher candidates through their self-efficacy for STEM practices. *Participatory Educational Research*, 9(3), 61–81. <a href="https://doi.org/10.17275/per.22.54.9.3">https://doi.org/10.17275/per.22.54.9.3</a>
- Baker, J. W. (2000). The "Classroom Flip": Using web course management tools to become the guide on the side. In: *the 11th International Conference on College Teaching and Learning*: Jacksonville, Florida. <u>https://upcea.edu/wp-content/uploads/2020/09/The-</u> <u>Classroom-Flip-Baker.pdf</u>
- Balkaya. S, & Akkucuk, U. (2021). Adoption and use of learning management systems in education: The role of playfulness and self-management. *Sustainability*, *13*, 1127, <u>https://doi.org/10.3390/su13031127</u>
- Bandura, A. (1997). *Self-efficacy: The exercise of control.* W.H. Freeman. <u>https://psycnet.apa.org/record/1997-08589-000</u>
- Barni, D., Danioni, F., & Benevene, P. (2019). Teachers' self-efficacy: The role of personal values and motivations for teaching. *Frontiers in Psychology*, 10. <u>https://doi.org/10.3389/fpsyg.2019.01645</u>
- Baroudi, S., & Shaya, N. (2022). Exploring predictors of teachers' self-efficacy for online teaching in the Arab world amid COVID-19. *Education and Information Technologies*, 27(6), 8093–8110. <u>http://dx.doi.org/10.1007/s10639-022-10946-4</u>
- Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. International Society for Technology in Education.

- Bishop, J., & Verleger, M. A. (2013, June). The flipped classroom: A survey of the research. In 2013 ASEE Annual Conference & Exposition (pp. 23-1200). https://doi.org/10.18260/1-2--22585
- Bitner, N., & Bitner, J. (2002). Integrating Technology into the Classroom: Eight Keys to Success. Journal of Technology and Teacher Education, 10(1), 95-100. <u>https://www.learntechlib.org/primary/p/9304/</u>
- Can, S., & Daloglu, A. (2021). University prep school instructors' self-efficacy perceptions. *Journal of Language and Linguistic Studies*, 17(1), 493–516. <u>http://dx.doi.org/10.17263/jlls.903485</u>
- Chan, S. Y., Lam, Y. K., & Ng, T. F. (2020). Student's perception on initial experience of flipped classroom in pharmacy education: Are we ready? *Innovations in Education* and *Teaching International*, 57(1), 62-73. <u>http://dx.doi.org/10.1080/14703297.2018.1541189</u>
- Chen, Y.-T., Liou, S., & Chen, L.-F. (2019). The relationships among gender, cognitive styles, learning strategies, and learning performance in the flipped classroom. *International Journal of Human-Computer Interaction*, 35(4-5), 395–403. <u>http://dx.doi.org/10.1080/10447318.2018.1543082</u>
- Cheng, L. (2023). Delving into the role of mindfulness on the relationship among creativity, anxiety, and boredom of young EFL learners. *Heliyon*, 9(2), e13733. https://doi.org/10.1016/j.heliyon.2023.e13733
- Choi, S., & Lee, S. W. (2020). Enhancing teacher self-efficacy in multicultural classrooms and school climate: The role of professional development in multicultural education in the United States and South Korea. AERA Open, 6(4), 233285842097357. https://doi.org/10.1177/2332858420973574
- Choo, Y. C. & Tuan Mastura Tuan Soh. (2020). Efikasi kendiri dan amalan pelaksanaan KBAT dalam kalangan guru Sains sekolah rendah. Seminar Pendidikan Sains 2019, 104-117.
- Chung, K. L. (2023) Strategies for enhancing online flipped learning: a systematic review of empirical studies during the COVID-19 pandemic. *Interactive Learning Environments*, 1-29. <u>https://doi.org/10.1080/10494820.2023.2184392</u>
- Coban, O. & Atasoy, R. (2019). An examination of relationship between teachers' selfefficacy perception on ICT and their attitude towards ICT usage in the classroom. *Cypriot Journal of Educational Sciences, 14*(1), 136–145. <u>http://dx.doi.org/10.18844/cjes.v14i1.3636</u>
- Corry, M., & Stella, J. (2018). Teacher self-efficacy in online education: a review of the literature. *Research in Learning Technology*, 26, 1–12 <u>http://dx.doi.org/10.25304/rlt.v26.2047</u>

- Dakduk, S., Santalla-Banderali, Z., & van der Woude, D. (2018). Acceptance of blended learning in executive education. *SAGE Open*, 8(3). https://doi.org/10.1177/2158244018800647
- Dewaele, J.M., Chen, X., Padilla, A.M., & Lake, J. (2019). The flowering of positive psychology in foreign language teaching and acquisition research. *Frontiers in Psychology*, 10, <u>https://doi.org/10.3389/fpsyg.2019.02128</u>
- Dewaele, J. M., & MacIntyre, P. D. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching*, 4(2), 237–274. <u>http://dx.doi.org/10.14746/ssllt.2014.4.2.5</u>
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. American Psychologist, 55, 34-43. <u>https://doi.org/10.1037/0003-066X.55.1.34</u>
- Doo, M.Y., Bonk, C.J. & Heo, H. (2023) Examinations of the relationships between selfefficacy, self-regulation, teaching, cognitive presences, and learning engagement during COVID-19. *Educational Technology Research and Development*, 71, 481– 504. https://doi.org/10.1007/s11423-023-10187-3
- Dupuis, J., Savick, S., & Fenster, M. (2020). Relationship between self-efficacy measured by the TSES scale and teacher participation in PDS activity. *Professional Educator*, 43(1), 47–58. <u>https://files.eric.ed.gov/fulltext/EJ1276209.pdf</u>
- Emirua, E. K., & Gedefaw, M. T. (2024). The effect of teacher self-efficacy on learning engagement of secondary school students. *Cogent Education*, 11(1). <u>https://doi.org/10.1080/2331186X.2024.2308432</u>
- Fallah, T., Hafezi, F., Makvandi, B., & Bavi, S. (2020). The effectiveness of flipped classroom technique in promoting academic motivation and self-Efficacy among students. *Iranian Journal of Learning and Memory*, 3(11), 69-75. <u>https://journal.iepa.ir/article\_122548\_f36634892adf5a66f6d45eb0bf97f5c7.pdf</u>
- Ghaemi, H., & Bayati, M. (2021). Software technology and writing skills improvement of intermediate EFL learners. *Journal of Research in Techno-based Language Education*, 1(2), 15-28. <u>https://doi.org/10.22034/jrtle.2021.138945</u>
- Gregersen, T. (2013). Language learning vibes: What, why and how to capitalize for positive affect. In D. Gabrys-Barker & J. Bielska (Eds.). *The affective dimension in second language acquisition* (pp. 89–98). Multilingual Matters.
- Hardianto, Sari, V.P. & Hidayat, (2023). Optimizing teacher self-efficacy in facing the new normal: A literature review. *Al-Ishlah: Jurnal Pendidikan*, 15, 15-24. <u>https://journal.staihubbulwathan.id/index.php/alishlah/article/view/2835/1292</u>
- Hatch, E., & Farhady, H. (1982). *Research design and statistics for applied linguistics*. Newbury House.

- Hatch, E. and Lazaraton, A. (1991). *The Research Manual: Design and Statistics for Applied Linguistics*. Heinle & Heinle, Boston.
- Hayat, A. A., Shateri, K., Amini, M., & Shokrpour, N. (2020). Relationships between academic self-efficacy, learning-related emotions, and metacognitive learning strategies with academic performance in medical students: a structural equation model. *BMC Medical Education*, 20(1), 76-84. <u>https://doi.org/10.1186/s12909-020-01995-9</u>
- Hennink, M. M., Kaiser, B. N., & Weber, M. B. (2019). What influences saturation? Estimating sample sizes in focus group research. *Qualitative Health Research*, 29(10), 1483–1496. <u>https://doi.org/10.1177/1049732318821692</u>
- Horvitz, B. S., Beach, A. L., Anderson, M. L., & Xia, J. (2014). Examination of faculty selfefficacy related to online teaching. *Innovative Higher Education*, 40(4), 305–316 <u>http://dx.doi.org/10.1007/s10755-014-9316-1</u>
- Hoshang, S., Hilal, T. A., & Hilal, H. A. (2021). Investigating the acceptance of flipped classroom and suggested recommendations. *Procedia Computer Science*, 184, 411– 418. <u>http://dx.doi.org/10.1016/j.procs.2021.03.052</u>
- Huang Y-M, Chan H-Y, Wang Y-H, et al. (2023). Effects of a blended multimedia teaching approach on self-efficacy and skills in over-the-counter medication counselling versus a lecture-based approach: protocol for a prospective cohort study of undergraduate students from a pharmacy school in Taiwan. *BMJ Open*, *13*, e068738. <u>https://bmjopen.bmj.com/content/13/1/e068738</u>
- Hung, H. T. (2017). Design-based research: redesign of an English language course using a flipped classroom approach. *TESOL Quarterly*, 51(1), 180–192. <u>http://dx.doi.org/10.1002/tesq.328</u>
- Infurna, C. J., Riter, D., & Schultz, S. (2018). Factors That Determine Preschool Teacher Self-Efficacy in An Urban School District. International Electronic Journal of Elementary Education, 11(1), 1–7. <u>https://www.iejee.com/index.php/IEJEE/article/view/574</u>
- Jiang, L., Zang, N., Zhou, N., & Cao, H. (2022). English teachers' intention to use flipped teaching: interrelationships with needs satisfaction, motivation, self-efficacy, belief, and support. *Computer Assisted Language Learning*, 35(8), 1890-1919. http://dx.doi.org/10.1080/09588221.2020.1846566
- Kadioglu, N., & Oskay, O. O. (2023). The effect of preparing lesson plans in online flipped learning model on pre-service teachers' self-efficacy levels of TPACK. *MIER Journal* of Educational Studies Trends and Practices, 13(1), 147–169. <u>http://dx.doi.org/10.52634/mier/2023/v13/i1/2408</u>

- Kang M., Zhang, J., Chutiyami, M., Liang, L. & Dong, J. (2023). Effectiveness of blended teaching in pre-service teacher education: A meta-analysis. *Distance Education*, 44(3). <u>http://dx.doi.org/10.1080/01587919.2022.2155617</u>
- Kaviani, M. (2022). The impact of instagram on learning English vocabulary among Iranian pre-intermediate EFL learners. *Journal of Research in Techno-based Language Education*, 2(1), 15-24. <u>http://dx.doi.org/10.22034/JRTLE.2022.147055</u>
- Khosravi, R., Dastgoshadeh, A., & Jalilzadeh, K. (2023). Writing metacognitive strategy-based instruction through flipped classroom: an investigation of writing performance, anxiety, and self-efficacy. *Smart Learning Environments*, 10(48), 1-26. <u>http://dx.doi.org/10.1186/s40561-023-00264-8</u>
- Kızkapan, O. (2023). Student science teachers' research self-efficacy: does it develop in a flipped course and predict achievement? *Interactive Learning Environments* <u>http://dx.doi.org/10.1080/10494820.2022.2163262</u>
- Köroglu, Z. Ç., & Çakir, A. (2017). Implementation of flipped instruction in language classrooms: An alternative way to develop speaking skills of pre-service English language teachers. *International Journal of Education and Development using Information and Communication Technology*, 13(2), 42-55. https://files.eric.ed.gov/fulltext/EJ1153321.pdf
- Ma, K., Chutiyami, M., Zhang, Y., & Nicoll, S. (2021). Online teaching self-efficacy during COVID-19: Changes, its associated factors and moderators. *Education and Information Technologies*, 26(3-4), 1-23. <u>http://dx.doi.org/10.1007/s10639-021-10486-3</u>
- MacIntyre, P., & Gregersen, T. (2012). Emotions that facilitate language learning: the positive-broadening power of the imagination. *Studies in Second Language Learning and Teaching*, 4(2), 193–213. http://dx.doi.org/10.14746/ssllt.2012.2.2.4
- MacIntyre, P. D., & Mercer, S. (2014). Introducing positive psychology to SLA. *Studies in Second Language Learning and Teaching,* 4(2), 153–172. doi: 10.14746/ssllt.2014.4.2.2
- Mackenzie, J. L., & Alba-Juez, L. (2019). *Emotion processes in discourse*. John Benjamins Publishing Company.
- Mackey, A., & Gass, S. M. (2015). Second language research: Methodology and design. Routledge. <u>https://doi.org/10.4324/9781315750606</u>
- Mafenya, N.P. (2021). Exploring technology as enabler for sustainable teaching and learning during the Covid-19 pandemic at a university in South Africa. *Perspectives in Education*, 40(3), 212-223. <u>https://doi.org/10.18820/2519593X/pie.v40.i3.14</u>
- Mahmood, S., Mohamed, O., Mustafa, S. M. S., & Noor, Z. M. (2021). The influence of demographic factors on teacher-written feedback self-efficacy in Malaysian

secondary school teachers. *Journal of Language and Linguistic Studies*, 17(4), 2111–2122. <u>http://dx.doi.org/10.52462/jlls.152</u>

- Mercer, S. (2023). The well-being of language teachers in the private sector: An ecological perspective. *Language Teaching Research*, 27(5), 1054-1077. <u>https://doi.org/10.1177/1362168820973510</u>
- Miguel, J. P., Silva, J. T., & Prieto, G. (2013). Career decision self-efficacy scale—short form: a Rasch analysis of the Portuguese version. *Journal of Vocational Behavior*, 82(2), 116-123. <u>http://dx.doi.org/10.1016/j.jvb.2012.12.001</u>
- Namaziandost, E., & Çakmak, F. (2020). An account of EFL learners' self-efficacy and gender in the flipped classroom model. *Education and Information Technologies*, 25(5), 4041-4055. <u>https://link.springer.com/article/10.1007/s10639-020-10167-7</u>
- Namaziandost, E., Tilwani, S. A., Mahdizadeh Khodayari, S., Ziafar, M., & Alekasir, S. (2020). Flipped classroom model and Flipped classroom model and self-efficacy in an Iranian English as a foreign self-efficacy in an Iranian English as a foreign language context: A gender-based study. *Journal of University Teaching and Learning Practice*, 17(5), 1-17. <u>http://dx.doi.org/10.53761/1.17.5.17</u>
- Norah Fahad Albadran (2020). Flipped classroom model based technology acceptance and<br/>adoption among faculty members in Saudi Universities. [Doctoral dissertation, Saudi<br/>Arabia University]. ProQuest Dissertations Publishing.<br/><br/><a href="https://etd.ohiolink.edu/acprod/odb\_etd/ws/send\_file/send?accession=toledo158707">https://etd.ohiolink.edu/acprod/odb\_etd/ws/send\_file/send?accession=toledo158707</a><br/><a href="https://etd.sposition=inline">8759013376&disposition=inline</a>
- Ong, E. L. & Kutty, F. M. (2022). The role of self-efficacy and digital technology skills of primary school teachers in motivating student learning. *Journal of Social Sciences and Humanities (MJSSH)*, 7(3), e001374. <u>https://doi.org/10.47405/mjssh.v7i3.1374</u>
- Onyema, E. M., Choudhury, T., Sharma, A., Atonye, F. G., Phylistony, O. C., & Edeh, E. C. (2021). Effect of flipped classroom approach on academic achievement of Students in computer science. *In Data driven approach towards disruptive technologies* (pp. 521-533). Springer. <u>http://dx.doi.org/10.1007/978-981-15-9873-9\_41</u>
- Ozturk, A.B., Bilgihan, A., Nusair, K. and Okumus, F. (2016). What keeps the mobile hotel booking users loyal? Investigating the roles of self-efficacy, compatibility, perceived ease of use, and perceived convenience. *International Journal of Information Management*, 36, 1350-1359. <a href="https://libkey.io/10.1016/j.ijinfomgt.2016.04.005?utm\_source=ideas">https://libkey.io/10.1016/j.ijinfomgt.2016.04.005?utm\_source=ideas</a>
- Pajares, F. (2001). Toward a positive psychology of academic motivation. The Journal of<br/>Educational Research, 95(1), 27-35.<br/>https://psycnet.apa.org/doi/10.1080/00220670109598780

- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health*, 42(5), 533–544. https://doi.org/10.1007/s10488-013-0528-y
- Pishghadam, R., & Abbasnejad, H. (2017). Introducing emotioncy as an invisible force controlling causal decisions: A case of attribution theory. *Polish Psychological Bulletin*, 48(1), 129–140. <u>https://doi.org/10.1515/ppb-2017-0016</u>
- Pressley, T. (2021). Returning to teaching during COVID-19: An empirical study on elementary teachers' self-efficacy. *Psychology Schools*, 58, 1611–1623 <u>http://dx.doi.org/10.1002/pits.22528</u>
- Prior, M. T. (2019). Elephants in the room: An "affective turn," or just feeling our way? *The Modern Language Journal*, *103*(2), 516–527. <u>https://doi.org/10.1111/modl.12573</u>
- Rashtchi, M. (2021). Self-efficacy and critical thinking of novice and experienced EFL teachers: a sequential mixed methods study. *Social Sciences and Humanities*, 29 (1), 1 25 <u>http://dx.doi.org/10.47836/pjssh.29.1.01</u>
- Rodríguez, S., Núñez, J. C., Valle, A., Blas, R., & Rosario, P. (2009). Teachers' self-efficacy, motivation and teaching strategies. *Psychology Writings*, 3(1), 1-7. https://psycnet.apa.org/record/2014-55255-004
- Seligman, M. E. P. (1998). The president's address. *American Psychologist*, 54, 559-562. <u>https://www.scirp.org/reference/referencespapers?referenceid=950089</u>
- Seligman, M. (2006). *Learned optimism: How to change your mind and your life*. Pocket Books.
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology. American Psychologist, 55(1), 5–14. <u>http://dx.doi.org/10.1037/0003-066X.55.1.5</u>
- Shah, D.B.; Bhattarai, P.C (2023). Factors contributing to teachers' self-efficacy: A case of Nepal. Education Sciences, 13(1). <u>https://doi.org/10.3390/educsci13010091</u>
- Teo, T., & Zhou, M. (2014). Explaining the intention to use technology among university students: A structural equation modeling approach. *Journal of Computing in Higher Education*, 26(2), 124–142 <u>http://dx.doi.org/10.1007/s12528-014-9080-3</u>
- Tschannen-Moran, M. & Woolfolk Hoy, A. (2001). Teacher efficacy: capturing an elusive construct. *Teaching and Teacher Education*, 17, 783-805. http://dx.doi.org/10.3102/00346543068002202
- Tseeke, M. (2021). Teachers' perceived self-efficacy in responding to the needs of learners with visual impairment in Lesotho. *South African Journal of Education*, 41(2), 1–12. <u>https://www.ajol.info/index.php/saje/article/view/225063/212322</u>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425-478. <u>https://doi.org/10.2307/30036540</u>

- Vitta, J. P., & Al-Hoorie, A. H. (2020). The flipped classroom in second language learning: A meta-analysis. *Language Teaching Research*, 27(5), 1269-1292. <u>https://doi.org/10.1177/1362168820981403</u>
- Wang, H., Du, Y., & Tsai, S. (2021). Evaluation of the Effectiveness Computer-Assisted Language Teaching by Big Data Analysis. *Mathematical Problems in Engineering*, 1-11. <u>https://doi.org/10.1155/2021/7143815</u>
- Webb, M., & Doman, E. (2019). Impacts of flipped classrooms on learner attitudes towards technology-enhanced language learning. *Computer Assisted Language Learning*, 33(1), 1-35. <u>http://dx.doi.org/10.1080/09588221.2018.1557692</u>
- Wei, X., Cheng, I. L., Chen, N.-S., Yang, X., Liu, Y., Dong, Y., Zhai, X., & Kinshuk. (2020). Effect of the flipped classroom on the mathematics performance of middle school students. *Educational Technology Research and Development*, 68(3), 1461-1484. <u>http://dx.doi.org/10.1007/s11423-020-09752-x</u>
- Wolff, L., & Chan, C. (2016). *Flipped classroom for legal education*. Springer http://dx.doi.org/10.1007/978-981-10-0479-7
- Yılmaz, D., & Turan, H. (2020). Self-Efficacy beliefs of pre-service teachers in teaching first reading and writing and mathematics. *Participatory Educational Research*, 7(1), 257–270. <u>http://dx.doi.org/10.17275/per.20.15.7.1</u>
- Yokoyama S (2019). Academic self-efficacy and academic performance in online learning: A mini review. *Frontiers in Psychology*, 9, 2794. <u>https://doi.org/10.3389/fpsyg.2018.02794</u>

Appendix A:

Teacher Sense of Efficacy Short Form (Tschannen-Moran & Hoy, 2001)

Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.

Efficacy for Instructional Strategies	Nothing		Very Little		Some Influence		Quite a bit		A great
			Little		mmuchee				Deal
	1	2	3	4	5	6	7	8	9
	1	2	5		5	0	/	0	,
To what extent can you use a variety of									
assessment strategies?									
To what extent can you provide an									
alternative explanation or example when									
students are confused?									

1=Nothing 3=Very little 5=Some influence 7= Quite a bit 9= A great Deal

To what extent our you could acad			1		
To what extent can you craft good					
questions for your students?					
How well can you implement alternative					
strategies in your classroom?					
Efficacy for Classroom Management					
How much can you do to control					
disruptive behavior in the classroom?					
How much can you do to get children to					
follow classroom rules?					
How much can you do to calm a student					
who is disruptive or noisy?					
How well can you establish a classroom					
management system with each group of					
students?					
Efficacy for Student Engagement					
How much can you do to get students to					
believe they can do well in schoolwork?					
How much can you help your students					
value learning?					
How much can you motivate students					
who show low interest in schoolwork?					
How much can you assist families in					
helping their children do well in school?					

# Appendix B

Flipped -Learning Interview

- How did you get started with flipped learning?
- As you have progressed with flipped learning, how has your practice evolved?
- Adopting your approach for different students and different classes, how do you gather feedback from your students?
- What have been your biggest challenges or obstacles with flipped teaching and learning?
- Talk to us about how you use the class time
- Is it an extra time for you in class that you can do other activities with the students?
- If you had one piece of advice for someone just starting out, what would that be?